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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,170	09/06/2000	Motoyasu Taguchi	071671/0155	8925
22428	7590	06/01/2005	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			LIU, SHUWANG	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/656,170

Applicant(s)

TAGUCHI, MOTOYASU

Examiner

Shuwang Liu

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15 and 17-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 6-15, 17-19 and 22-27 is/are rejected.  
7) ☒ Claim(s) 20 and 21 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments regarding claim 1 filed 02/22/05 have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meets the claimed limitation as rejected.

Applicant's argument – "The Examiner appears to treat the LNA 8 of Sudo as a finger circuit element. However, the LNA 8 of Sudo is an amplifier for a signal from one antenna, and is not a finger circuit element for making a correlation between a received signal and a known signal. Sudo neither discloses nor suggests suspending an operation of the finger circuits 1207-1209.

Examiner's response – In response to applicant's argument that the references fail to show "a finger circuit element for making a correlation between a received signal and a known signal" of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Claim 1 recited "a finger.... for making a correlation between a received signal from a radio circuit connected to an antenna and a known signal (lines 2-4) and "based on the correlated received signal from the finger circuit" (lines 9-10). It is clear to show the finger circuit makes a correlation between a received signal and a known signal instead of a finger circuit element. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Applicants are reminded that the Examiner is entitled to give the broadest reasonable interpretation to the language of claims. So the Examiner considers "LNA 8" to be "a finger circuit element" within the broad meaning of the term. The Examiner is not limited to Applicant's definition which is not specifically set forth in the claims. In re Tanaka et al., 193 USPQ 139, (CCPA) 1977.

2. Claims 1-4, 11-15, and 22 -23 are under the new ground(s) of rejection thereby because of the amendments.

#### ***Claim Objections***

3. Claim 22 is objected to because of the following informalities.  
Change "the operation" in line 5, to - -an- -.  
Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-4, 6-10 and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation of "a plurality of outputs from the from the finger circuit elements" is a contradiction with the limitations recited in lines 2-4 and 9-10 of claim 1. It is also unclear whether a signal output from a finger circuit element is a correlation received signal, a combination of a plurality of outputs from the finger elements as a correlated received signal, or the outputs from the finger circuit elements are correlated received signals.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 8, 12, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sudo et al. (US 6,625,202).

As discloses in figures 3-4, Sudo et al. discloses:

(1) regarding claims 1 and 12:

a receiving terminal for CDMA system comprising:

a finger circuit (7, 8, 9, 10, 11, 12, 1207-1209 and 120) having a plurality of finger circuit elements (including 8) for making between a correlation of a received signal from a radio circuit connected to an antenna (6) and a known signal (for example, PN, 1202) and feeding out a plurality of outputs from the finger circuit element as a correlated received signal (by 1211) (see claim 3 and column 8, lines 5-48); and

a rake circuit ((12D, 18 and 13D) for combining the plurality of outputs from a finger circuit elements (column 8, line 66-column 9, line 11 and claim 1);

wherein the rake circuit includes a level judgment circuit for executing electric field level judgment based on the correlated received signal from the finger circuit and a predetermined threshold level (claim 1 and column 8, lines 5-31), and

wherein an operation of at least one finger circuit element can be suspended for a fixed, predetermined time period according to the result of the level judgment (column 8, lines 5-49 and claim 3).

(2) regarding claims 8 and 19:

the finger circuit makes a correlation between the received signal from the radio circuit and data of known signal data, demodulates the correlated data to symbol unit data, and feeds out the demodulated data to the rake circuit (column 7, lines 27-66).

8. Claims 1-4, 8, 11-15, 19, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Sudo et al. (US 6,363,101).

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As discloses in figures 1-12, Sudo et al. discloses:

(1) regarding claims 1, 8, 12 and 19:

a receiving terminal for CDMA system comprising:

a finger circuit (figure 1) having a plurality of finger circuit elements (40 and figure 13) for making between a correlation of a received signal from a radio circuit connected to an antenna (connected with 3) and a known signal (PN in figure 13) and feeding out a plurality of outputs from the finger circuit element as a correlated received signal (see figure 13) (column 11, lines 50-column 14, lines 9); and

a rake circuit (40-48) for combining the plurality of outputs from a finger circuit elements (column 8, line 25-column 11, line 27);

wherein the rake circuit includes a level judgment circuit for executing electric field level judgment based on the correlated received signal from the finger circuit and a predetermined threshold level (column 8, line 25-column 11, line 27), and

wherein an operation of at least one finger circuit element can be suspended for a fixed, predetermined time period according to the result of the level judgment (column 8, line 25-column 11, line 62).

(2) regarding claims 2, 11, 13, and 22-24:

wherein operation of a control clock supply to the at least one finger circuit element (or a circuit, which is making a correlation between a received signal that is judged to have a low electric field level and a known signal) is suspended for a fixed, predetermined period time for power consumption reduction according to the result of

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the electric field level judgment by the level judgment circuit (column 8, line 25-column 11, line 62).

(3) regarding claims 3 and 14:

wherein operation of a control clock supply to a timing circuit in the at least one finger circuit element is suspended according to the result of the electric field level judgment by the level judgment circuit (column 8, line 25-column 11, line 62).

(4) regarding claims 4 and 15:

wherein operation of a control clock supply is suspended after the lapse of a predetermined period of time ( column 8, line 25-column 11, line 62).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6, 7, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudo et al. in view of Ishikura (US 5,239,684).

Sudo disclose all of the subject matter as described above except for specifically teaching a memory which is an E2PROM, and threshold data therefrom is supplied under CPU control to the lake circuit as claimed.



Ishikura et al., in the same field of endeavor, teaches a memory (107 in figure 1 and 2) which is an E2PROM, and threshold data therefrom is supplied under CPU (161 in figure 2) control to a circuit (column 4, lines 11-12 and column 8, lines 56-66).

It is well known that the area of an E2PROM cell is about one fifth of the area of a SAR cell so the area required by a given RAM on the semiconductor chip is greatly reduced, or RAM storage capacity can be increased. Furthermore, E2PROM setting value can be updated easily. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ E2PROM as taught by Ishikura to store threshold value of the receiver of Sudo et al. in order to update stored value easily.

#### ***Allowable Subject Matter***

11. Claims 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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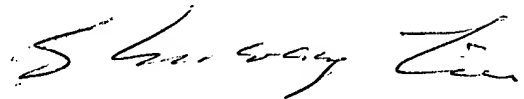
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is 571 272-3036. The examiner can normally be reached on M-F, 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703 305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Shuwang Liu". The signature is fluid and cursive, with the first name "Shuwang" and the last name "Liu" clearly distinguishable.

Shuwang Liu  
Primary Examiner  
Art Unit 2634

May 23, 2005



REPLACEMENT SHEET

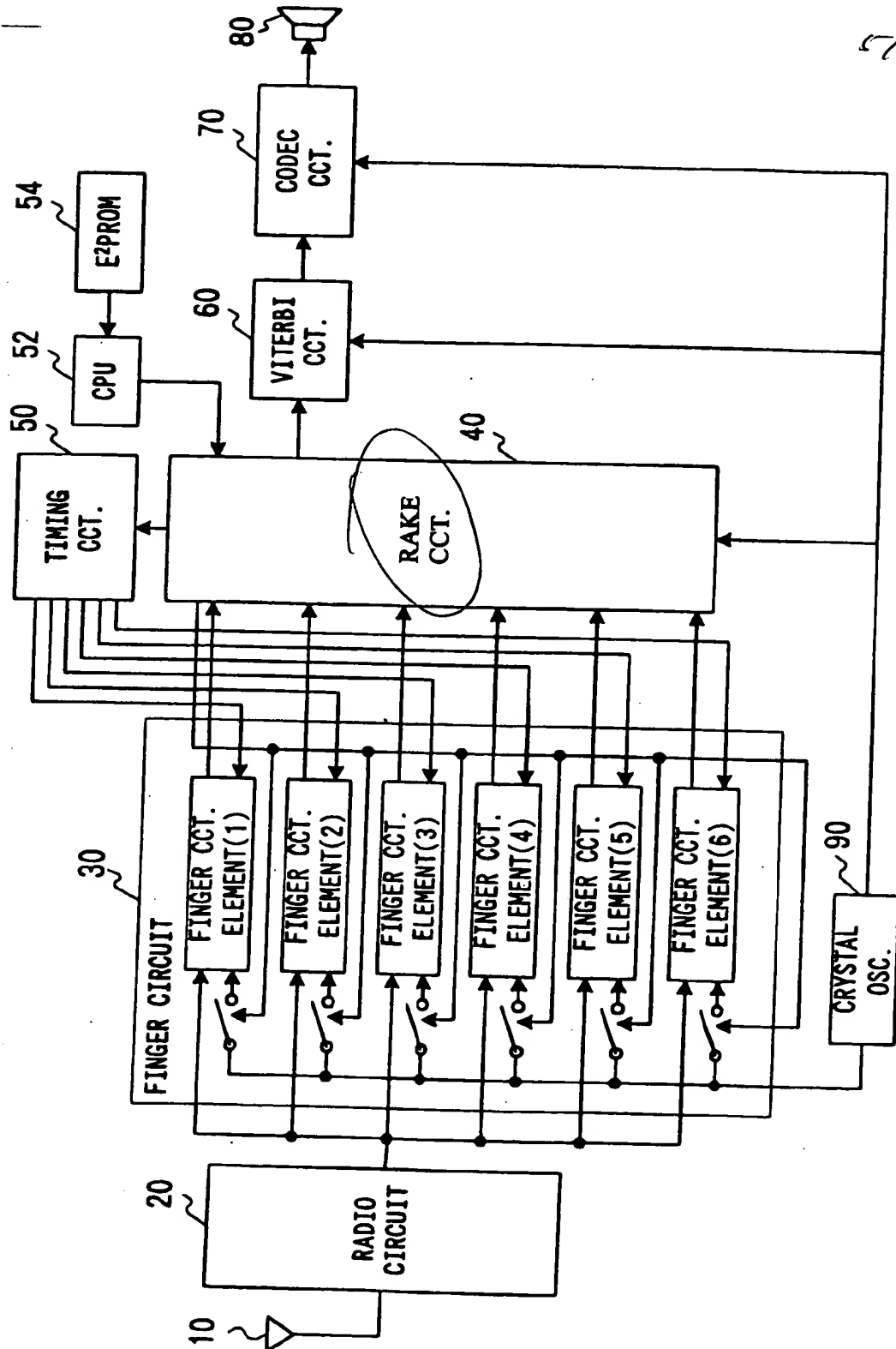
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RECEIVING TERMINAL, RECEIVER AND  
RECEIVING METHOD FOR CDMA SYSTEM  
Inventors: Motoyasu TAGUCHI  
Attorney: David A. Blumenthal -071671-0155  
FOLEY & LARDNER LLP - (310) 975-7845

*Approved*

*5/17/05*

FIG. 1



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REPLACEMENT SHEET

RECEIVING TERMINAL, RECEIVER AND  
RECEIVING METHOD FOR CDMA SYSTEM  
Inventors: Motoyasu TAGUCHI  
Attorney: David A. Blumenthal -071671-0155  
FOLEY & LARDNER LLP -(310) 975-7845

*approved*

FIG.2

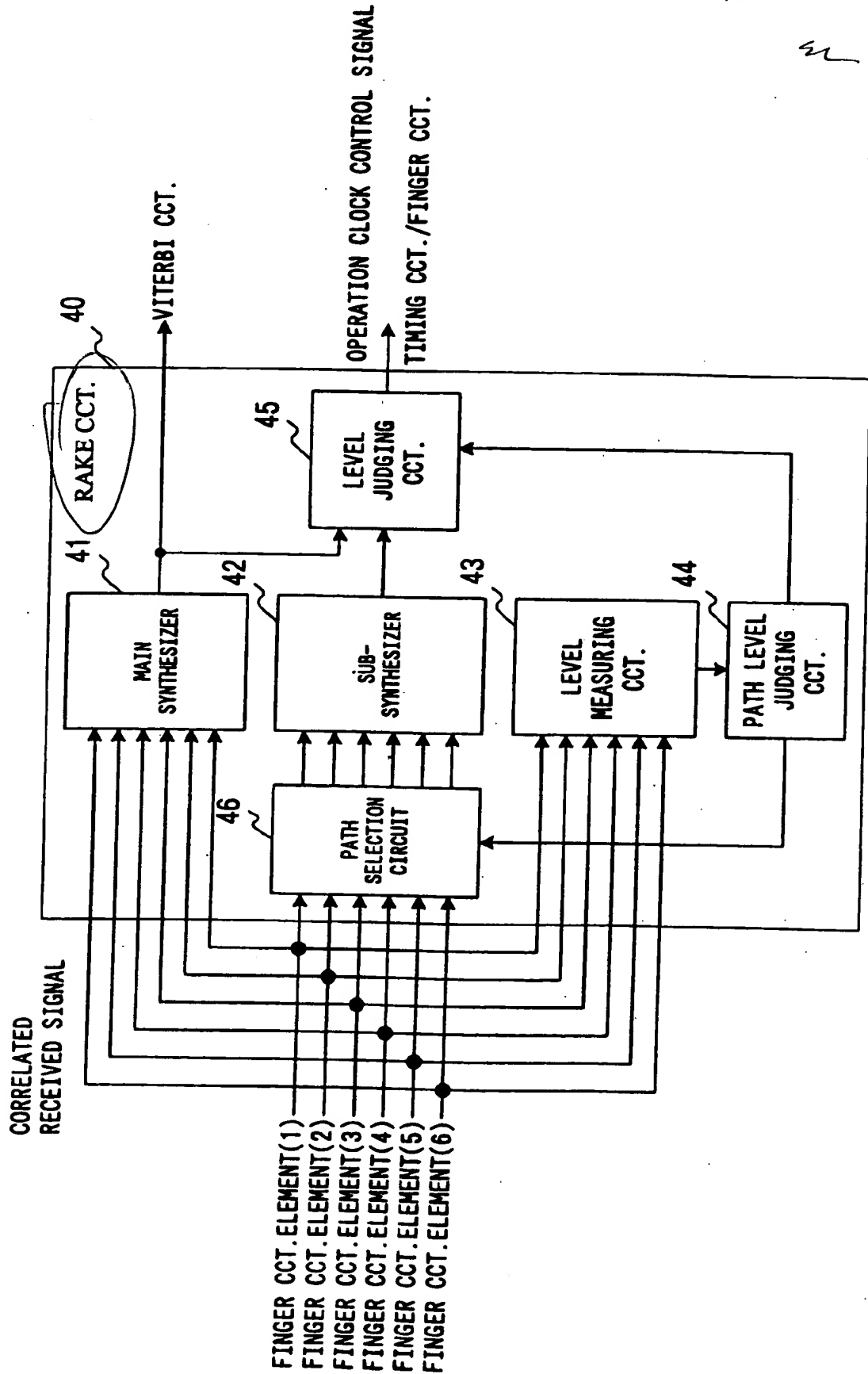
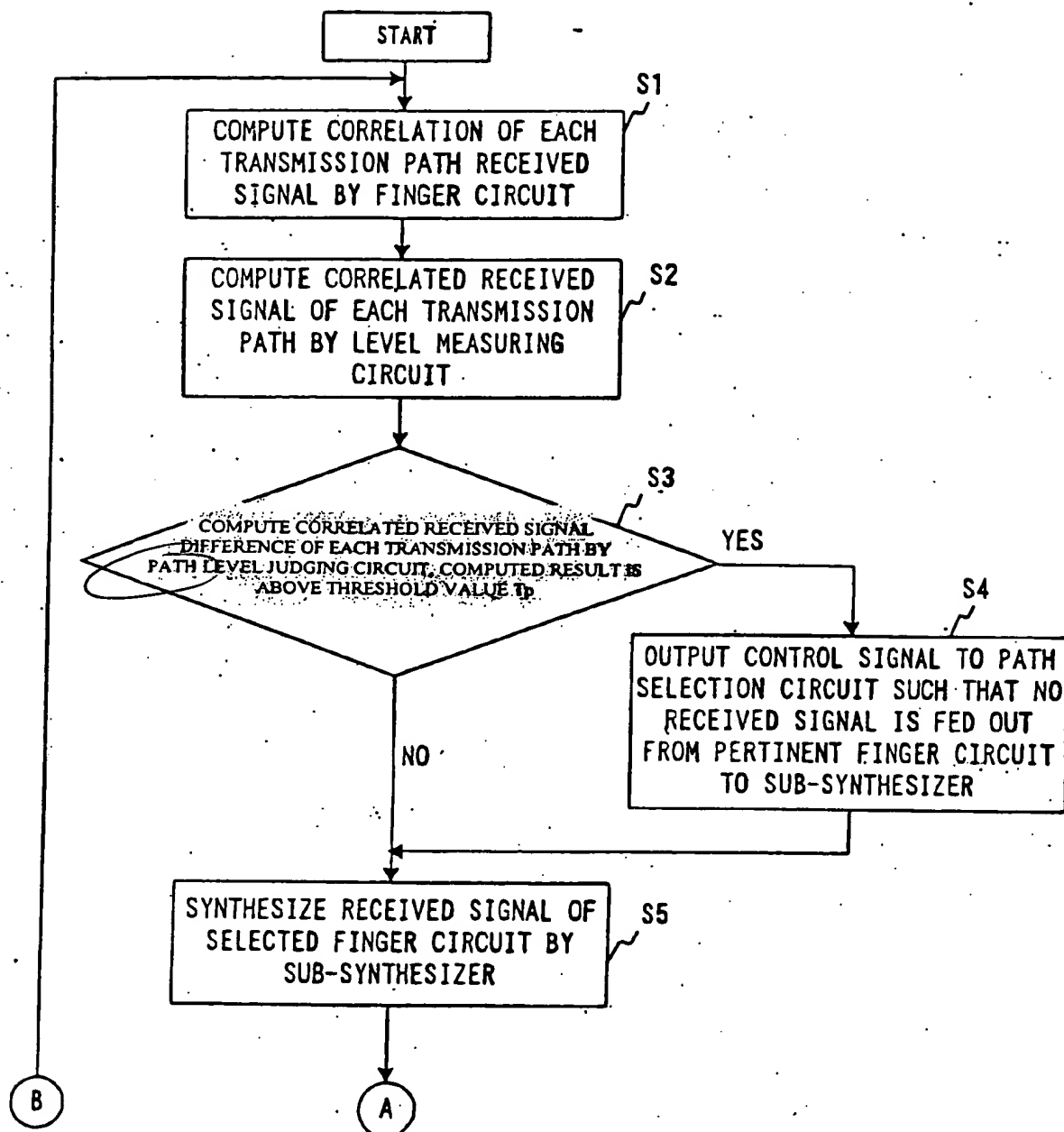


FIG.5A

*approved*  
*su*



*approved.*

*sc*

FIG. 8 PRIOR ART

